

WHAT IS CLAIMED:

1. A horizontal form-fill seal machine for the in-line manufacturing of food packages having shrouded mated fastener tracks with slider closures,
5 comprising:

a supply of web material extending in a machine direction defining a serial succession of package sidewalls extending in the machine direction;

a supply of mated fastener tracks, including a
10 first track with a shorter flange mated to a second track with a longer flange;

a folding member receiving said web material;

a web drive transporting said web material over said folding member in the machine direction, folding
15 said web material into overlying side-by-side portions, one against the other, to form a continuous succession of folded package portions extending in the machine direction and having pairs of overlying first and second package sidewalls having overlying free edges with shroud
20 portions at the free edges;

a slider member mateable with said mated fastener tracks for movement along said mated fastener tracks in opposite directions to open and close said mated fastener tracks;

25 a slider installation member inserting said slider member onto said mated fastener tracks;

fastener seal bars extending in the machine direction, sealing a portion of each flange of said fastener tracks to said first sidewall, leaving the
30 flanges free of attachment to the second package sidewall;

side seal bars extending at an angle to said machine direction, sealing portions of said package sidewalls together to form respective side seals of the
35 food package;

a filler member filling product into said package;

sidewall sealing means sealing said second package sidewall to said second track flange; and

5 a shroud sealing member sealing the free edges of said package sidewalls to form a shroud enclosing said fastener tracks, to thereby forming a completed food package.

2. The machine of claim 1 further comprising a
10 separating member separating the completed food package from the folded package portions.

3. The machine of claim 1 wherein said fastener seal bars form at least one peel seal and at least one permanent seal.

15 4. The machine of claim 3 wherein a cavity is formed between the package sidewalls, the machine further comprising a package opening member upstream of said filler member to separate free edges of the package sidewalls in preparation for a filling operation and a
20 gas flushing member flushing the cavity in preparation for a filling operation.

5. The machine of claim 1 wherein said slider installation member is located upstream of said fastener seal bars.

25 6. The machine of claim 1 further comprising a stop forming station through which said mated fastener tracks pass, to crush a portion of said mated fastener tracks to form a stop member.

7. The machine of claim 6 wherein said stop forming station is located upstream of said slider installation member.

8. The machine of claim 7 wherein said slider installation member positions a slider member immediately downstream of the stop member.

9. The machine of claim 1 further comprising a funnel member having a free end insertable below the seals formed by said fastener seal bars.

10. The machine of claim 7 wherein said funnel member comprises a clam shell.

11. The machine of claim 1 wherein two pairs of fastener sealing bars are providing for sealing the mated fastener tracks.

12. The machine of claim 11 wherein the mounting flanges extend from the fastener tracks different amounts, with one mounting flange having a greater height than the other, with the food package viewed in an upright position.

13. The machine of claim 12 wherein the fastener track seal bars seal medial portions of said package walls, intermediate the shroud portion at the top of the package walls and the bottom of the package walls.

14. The machine of claim 13 further comprising a notching member upstream of said folding member for forming a notch in the shroud portion.

15. The combination of a shredded cheese product and a vertical form-fill machine for the in line manufacturing of food packages containing the cheese product and having shrouded mated fastener tracks with
5 slider closures comprising:

a supply of web material extending in a machine direction defining a serial succession of package sidewalls extending in the machine direction;

a supply of mated fastener tracks, including a
10 first track with a shorter flange mated to a second track with a longer flange;

a folding member receiving said web material;

a web drive transporting said web material over said folding member in the machine direction, folding
15 said web material into overlying side-by-side portions, one against the other, to form a continuous succession of folded package portions extending in the machine direction and having pairs of overlying first and second package sidewalls having overlying free edges with shroud
20 portions at the free edges;

a slider member mateable with said mated fastener tracks for movement along said mated fastener tracks in opposite directions to open and close said mated fastener tracks;

25 a slider installation member inserting said slider member onto said mated fastener tracks;

fastener seal bars extending in the machine direction, sealing a portion of each flange of said fastener tracks to said first sidewalls, leaving the
30 flanges free of attachment to the second package sidewalls;

side seal bars extending at an angle to said machine direction, sealing portions of said package sidewalls together to form respective side seals of the
35 food package;

a pair of shroud seal bars extending in the machine direction, sealing the free edges of the package walls to form a closed shroud covering said fastener tracks;

5 a filler member filling product into said package;

sidewall sealing means sealing said second package sidewall to said second track flange; and

a shroud sealing member sealing the free edges
10 of said package sidewalls to form a shroud enclosing said fastener tracks, to thereby forming a completed food package.

16. A method of making a flexible package for food products, comprising the steps of:

15 providing a supply of web material defining a serial succession of package sidewalls;

paying out a first portion of the web material;

providing a supply of mated fastener tracks, including a first track with a shorter flange mated to
20 second track with a longer flange;

paying out a first portion of the mated fastener tracks;

crushing a serial succession of spaced apart portions of said mated fastener tracks to form a serial
25 succession of spaced apart slider stop portions;

folding the web material to form a serial succession of folded package portions, each folded package portion having overlapping first and second package sidewalls with overlying free ends and shroud
30 portions at the free ends, and intermediate portions spaced from the shroud portions;

aligning the mated fastener tracks in-line with the intermediate portions;

providing a supply of sliders;

dispensing the sliders one at a time;
inserting sliders on the mated fastener tracks;
joining at least a part of the mated fastener
tracks to the intermediate portion of said first package
5 sidewall;

forming a second fastener track seal between a
portion of the second fastener track flange and a portion
of said first package sidewall adjacent the intermediate
portion thereof;

10 forming a permanent seal between the first
fastener track flange and the first package sidewall;

forming transverse, side seals for each package
portion to cooperate with said sidewalls to form a pouch;

severing the pouch from the web material and
15 the mated fastener tracks to form a separate flexible
package;

separating the overlying free ends of the
package portions to form an opening;

filling the pouch with product through the
20 opening;

joining one of the mated fastener tracks to the
intermediate portion of said second package sidewall to
close the upper portion of the bag; and

sealing free edges of the package sidewalls to
25 form a shroud enclosing said mated fastener tracks.

17. The method of claim 16 wherein the mated
fastener tracks include downwardly depending flanges and
the step of the joining at least apart of the mated
fastener tracks to the first package sidewall comprises
30 the step of providing a heat shield and inserting the
heat shield between the flanges while applying heat and
pressure.

18. The method of claim 16 further comprising the step of forming a weakening line in at least one of said sidewalls extending across the mated fastener tracks, to a termination point below said mated fastener tracks.

19. The method of claim 18 further comprising the step of forming a tear line in at least one of said sidewalls along a line extending below said mated fastener tracks and intersecting said termination point.

20. The method of claim 16 further comprising the step of forming a slider-receiving opening in at least one of said sidewalls to receive a portion of said slider.

21. The method of claim 16 wherein the step of inserting the slider is performed before the step of joining the mated fastener tracks to the package sidewalls.

22. The method of claim 16 wherein the step of forming a second fastener tracks seal comprises forming a peel seal.